

Appendix Table 4. Indicators used in included studies

Africa			
Domain	Indicator	Specific measure	
Resource mobilization	Population	% target population enrolled Enrolment by district	
	Budgetary	Premium revenue as % of health funds provider(s) Premium as % administrative/operational costs Claims ratio (amount paid for the provision of covered health-care divided by total premium revenues) Income / expenditure ratio Ratio management costs to premiums	
	Other	Confidence coefficient (the percentage of women paying the total amount of the fixed premium in a single payment)	
Financial Protection	Out-of-pocket expenditure (OOPE)	OOPE for medical care/drugs OOPE for OPD care OOPE for medical care OOPE per episode of illness Fee for service by insurance status OOP on delivery care at a modern health facility % reduction of OOPE by insurance status	
		Catastrophic expenditure	Probability of (catastrophic) expenditure
		Other	Average % reimbursement of health costs Selling food to cover health expenses Ratio of median to mean health expenditures by MHO status
	Utilization	General	Mean yearly consultation rate Visits per individual/year across members and non-members Probability use of modern healthcare
	Inpatient services	Hospital utilization rates Length hospital stay by insurance status Probability to have inpatient care	
	Outpatient services	Use of outpatient services Outpatient costs per visit	
	Other	Immunization coverage Odds ratios prenatal care	
Quality of Care	Technical quality of care	Drug availability Number technical staff Number immunisations Staff time per visit Range of services offered Selling mosquito nets Waiting time Consultation by nurse instead doctor Continuity of preventive care	
	Perceived quality of care	Drug availability Quality of prescribed medicine Recovery period Staff attitude Satisfaction with service/care	

Social inclusion	Income / SES related	Enrolment by income Enrolment by socio-economic status (SES) Affordability of premium by: SES; pregnancy OOPE by SES Probability of visit by SES Hospitalization by quintile Prenatal care by SES
	Utilization by insurance status	Visit probability by health insurance status Ratio hospitalization admission rates by health insurance status
	Other	Coverage by formal/informal sector Inclusivity benefits package
Community empowerment	Scheme level	Decision of scheme design Management scheme Decision of drug fees
	Community	Women decision on need/timing health care

Asia

Domain	Indicator	Specific measure
Resource mobilization	Risk-sharing	Cross-subsidization from richer to poorer scheme members Medical expenditure levels of scheme members compared to non-scheme members.
	Financial sustainability	Scheme income/expenditure ratio Hospital income from scheme reimbursements as a % of total hospital income Premiums/claims ratio Pre-post scheme medical expenditure levels (enrolled/non-enrolled)
Financial Protection	Out-of-pocket expenditure (OOPE)	Odds ratio OOPE and adverse health outcomes OOPE as proportion of total health expenditure OOPE for medical care (in- and outpatient)/drugs (co-payment rate) OOPE as proportion of (annual) income Rate of (medical) impoverishment (poverty gap)
	Catastrophic health expenditure	Catastrophic health expenditures (by income group) Incidence rate of catastrophic health expenditure of Total household consumption Incidence rate of catastrophic health expenditure in Terms of ability to pay Degree by which OOPE exceeds the threshold of OOPE share of total household consumption (intensity of catastrophic health expenditure)
	Financial protection	Financial coverage from (local) government subsidies by income Financial reimbursement from benefit packages (net benefits) Affordability for the poor Increased probability in healthcare utilization Mean lag time between discharge from hospital and reimbursement Ratios of health insurance protection per capita (ratio average health insurance contribution per capita to average health care expenditure per capita) Real per capita fee-for-service health care revenue

	Other	<p>Introduction and extension of reimbursement packages</p> <p>Affordability for the poor</p> <p>Increased probability in healthcare utilization</p> <p>Mean lag time between discharge from hospital and reimbursement</p>
Utilization	General	<p>Health care seeking behaviour by income group or SES</p> <p>Outreach of health insurance scheme to rural and urban population</p> <p>Claim submission rates by beneficiary</p> <p>Utilization of health services</p> <p>(Probability of) access to health care benefits</p> <p>Scheme's health care coverage as a share of total health care coverage (indicator for equity of utilization)</p> <p>Insurance underutilization rate</p> <p>Health expenditure (insured/uninsured)</p> <p>Odds of scheme members being untreated</p> <p>Use/need ratio</p>
	Inpatient services	<p>(Probability of) utilization rate of inpatient services</p> <p>Hospital admissions/discharges rates</p> <p>Length of hospital stay</p> <p>Probability of access to inpatient care</p> <p>Progressivity of pro-poor subsidies and utilization of inpatient services</p>
	Outpatient services	<p>(Probability) of utilization rate of outpatient services</p> <p>Utilization rate of village health centres</p> <p>Utilization immunisation services</p> <p>Average number of drugs provided per patient visit</p> <p>Progressivity of pro-poor subsidies and utilization of outpatient services</p> <p>Use of health card for outpatient care</p> <p>Probability of access to inpatient services</p>
	Other	<p>Utilization rate maternal health services</p> <p>Odds ratio between paying out-of-pocket and adverse pregnancy outcomes</p> <p>Participation in a maternal pre-payment system as an indicator of service utilisation</p> <p>Association between financial variables (amount of savings in the bank, coverage by a maternal pre-payment scheme and health insurance) with both delivery in hospital and skilled attendance at delivery</p> <p>Proportion of births delivered by caesarean section</p> <p>Extent to which scheme provides an impetus to local maternal and child healthcare personnel to provide services</p> <p>Deliveries attended by doctors</p> <p>Number of deliveries at home</p> <p>Access to deliveries in hospitals</p> <p>Average haemodialysis per week among ESRD patients of different economic status</p> <p>Average access to erythropoietin injection among ESRD patients of different economic status</p> <p>Chronic disease diagnosis rate (adverse selection)</p>
Quality of Care	Perceived quality of care	<p>Perception of enrolees on information provided by health care providers</p> <p>Workload healthcare providers</p> <p>Patient-provider relationship</p> <p>Conflict between higher and lower level hospitals due to high referral rate</p>

	Technical quality of care	Drainage of doctors (doctor/population ratio) Number of village clinics Number of pharmacists Number of midwives working at village level Number of private doctors working at township level Quality pre-, intra- and post-operative care Average length of hospital stay Weight-for-age among the poorest quintile
Social inclusion	Income / SES related	Coverage rates by income group or SES Probability of scheme enrolment by income group Probability of scheme enrolment by health status Mean socioeconomic rank score of insurance claimants relative to their local membership base Claim submission by income group or SES Likelihood of insured to have a lower socio-economic status compared to the uninsured Dropout and renewal by SES Equality of access
	Benefits received by target groups	Beneficiaries by income or target group
Community empowerment	Community empowerment	Involvement of scheme members in decision making and design or scheme design Weight-for-age among the poorest quintile